

**REMARKS**

Favorable reconsideration and allowance of the subject application are respectfully requested in view of the following remarks.

**Summary of the Office Action**

The Abstract is objected to because it is allegedly a direct copy of claim 1.

Claims 1-3 and 6-10 are objected to as having insufficient antecedent basis.

Claims 1-3 and 6-12 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Li et al. (NPL document, Time-domain dielectric constant measurement of thin film in GHz-Thz frequency range near the Brewster angle) in view of US Patent No. 3,985,447 to Aspnes.

Claim 4 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Li et al. in view of Aspnes and US Patent No. 5,991,448 to Salamon et al.

**Summary of the Response to the Office Action**

Applicant has amended the Abstract and claims 1-3 and 6-10 to overcome the objections. Also, Applicant respectfully submit that the rejections under 35 U.S.C. § 103(a) are improper and, therefore should be withdrawn. Accordingly, claims 1-12 remain pending in this application for consideration.

**Objection to the Abstract**

The Abstract is objected to. Applicant has amended the Abstract in light of the Examiner's comments set forth in Sections 2 and 3 of the Final Office Action. Accordingly, Applicant respectfully requests that the objection to the Abstract be withdrawn.

**Objection to Claims**

Claims 1-3 and 6-10 are objected to as having insufficient antecedent basis. Claims 1-3 and 6-10 have been amended by accepting the Examiner's helpful suggestions. Accordingly, Applicant respectfully requests that the objection to claims 1-3 and 6-10 be withdrawn.

**All Claims Define Allowable Subject Matter**

Claims 1-3 and 6-12 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Li et al. in view of Aspnes, and claim 4 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Li et al. in view of Aspnes and Salamon et al. Applicant respectfully traverses the rejections for at least the following reasons.

With respect to independent claim 1, Applicant respectfully submits that Li et al. and Aspnes, whether taken individually or in combination, fail to teach or suggest a claimed combination including at least a feature of "determining a complex dielectric constant of the thin film sample based upon a spectrum of the transmitted or reflected light that has undergone said multiple internal reflections."

The Final Office Action concedes that "Li does not explicitly disclose where the light undergoes multiple internal reflections within the sample, and measuring said multiple

reflections in order to determine a complex dielectric constant,” but relies upon Aspnes to remedy the deficiencies by citing to FIG. 1 and the descriptions in col. 2, lines 23-27 and col. 5, line 37 to col. 6, line 4. The Final Office Action alleges that the cited portions disclose “the dielectric constant is being measured in order to calculate thin film thickness and the refractive index of the thin film sample.” Applicant respectfully disagrees.

Applicant respectfully submits that Aspnes, as shown in FIG. 1 for example, merely discloses that a thin film 21 is tested to perform a Fourier analysis of the optical intensity vs. time, and to process the analysis to yield the refractive index and thickness of the thin film 21 (see col. 2, lines 14-45). The optical system illustrated in FIG. 1 Aspnes is used to measure Fourier coefficients. While Aspnes mentions the dielectric constants in col. 5, line 37 to col. 6, line 4, these dielectric constants are merely used to calculate the reflection coefficients and Aspnes is silent about determining these dielectric constants based on a spectrum of the transmitted or reflected light beam 17 that has undergone the multiple internal reflections. Thus, Applicant respectfully submits that Aspnes fails to teach or suggest a methodology of “determining a complex dielectric constant of the thin film sample based upon a spectrum of the transmitted or reflected light that has undergone said multiple internal reflections,” as recited by independent claim 1. Accordingly, Applicant respectfully submits that Li et al. and Aspnes, whether taken individually or in combination, fail to teach or suggest the above-noted feature recited by independent claim 1.

For similar reasons as those set forth above, Applicant respectfully submits that Li et al. and Aspnes, whether taken individually or in combination, fail to teach or suggest a claimed combination including at least a feature of “a determining unit that determines a complex

dielectric constant of the thin film sample based upon a spectrum of the transmitted or reflected light that has undergone said multiple internal reflections,” as recited by independent claim 6.

Moreover, the Final Office Action does not rely upon Salamon et al. to remedy the above-noted deficiencies of Li et al. and Aspnes. Applicant respectfully submits that Salamon et al. cannot remedy the deficiencies of Li et al. and Aspnes.

Accordingly, Applicant respectfully asserts that the rejection of independent claims 1 and 6 under 35 U.S.C. § 103(a) should be withdrawn because the applied references, whether taken individually or in combination, do not teach or suggest each and every feature recited in each of independent claims 1 and 6. Moreover, the rejections of claims 2-4 and 7-12 should also be withdrawn for at least the same reasons as discussed above with regard to the respective independent claims 1 and 6 and for the additional features that they recite.

Without other rejections pending, Applicant respectfully asserts that claims 1-12 are in condition for allowance.

### **CONCLUSION**

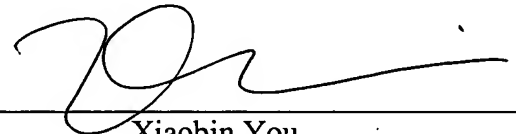
In view of the foregoing remarks, Applicant respectfully requests entry of the amendments to place the application in clear condition for allowance or, in the alternative, in better form for appeal. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicant's undersigned representative to expedite the prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted

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By: \_\_\_\_\_



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